

TARGETED ARTIFICIAL GENE DELIVERY

Publication number: JP2003507348 (T)

Publication date: 2003-02-25

Inventor(s):

Applicant(s):

Classification:

- International: A61K35/76; A61K47/30; A61K47/34; A61K47/42;
 A61K47/46; A61K47/48; A61K48/00; A61K9/127;
 A61K9/50; C12N15/09; C12N15/06; C12N15/07;
 A61K35/66; A61K47/30; A61K47/34; A61K47/42;
 A61K47/46; A61K47/48; A61K48/00; A61K9/127;
 A61K35/00; C12N15/06; C12N15/07; (IPC1-7);
 A61K35/76; A61K47/30; A61K47/34; A61K47/42;
 A61K47/46; A61K48/00; C12N15/09

- European: A61K47/48R; A61K47/48W2; A61K47/48W6; A61K9/127B;
 A61K9/50H(B); C12N15/06; C12N15/07

Application number: JP20010516578T 20000818

Priority number(s): US19990377153 19990819; WO2000US22619 20000818

Also published as:

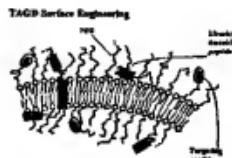
W00112235 (A2)
 W00112235 (A3)
 US2008103108 (A1)
 US2002064520 (A1)
 NZ517241 (A)

more >>

Abstract not available for JP 2003507348 (T)

Abstract of corresponding document: WO 0112235 (A2)

Novel and improved compositions and methods for gene therapy are provided. In particular, a targeted artificial gene delivery ("TAGD") vehicle is provided, comprising a multifunctional artificial surface moiety surrounding a recombinant viral particle (nucleocapsid) or recombinant core for gene delivery.

Data supplied from the **espacenet** database — Worldwide

(19)日本国特許庁 (JP)

(12) 公表特許公報 (A)

(11)特許出願公表番号
特表2003-507348
(P2003-507348A)

(13)公表日 平成15年2月25日 (2003.2.25)

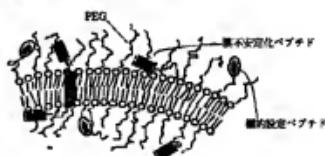
(51)Int.Cl'	識別記号	F I	テ-マ-ト (参考)
A 6 1 K 48/00	A 6 1 K 48/00	4 B 0 2 4	
35/76	35/76	4 C 0 7 6	
47/30	47/30	4 C 0 8 4	
47/34	47/34	4 C 0 8 7	
47/42	47/42		
	審査請求 未請求	予備審査請求 有	(全 41 頁) 最終頁に統ぐ
(21)出願番号	特願2001-516578(P2001-516578)	(71)出願人	ユニバーシティ オブ サザン カリフォルニア
(86) (22)出願日	平成12年8月18日(2000.8.18)		アメリカ合衆国 カリフォルニア州
(85)翻訳文提出日	平成14年2月15日(2002.2.15)	90007 ロサンゼルス ユニバーシティ	
(86)国際出願番号	P C T / U S 0 0 / 2 2 6 1 9	パーク サウス ホーブ ストリート	
(87)国際公開番号	W O 0 1 / 0 1 2 2 3 5	3716 スート 313	
(87)国際公開日	平成13年2月22日(2001.2.22)	(72)発明者	ロゼンバーグ, ヤニーナ
(31)優先権主張番号	0 9 / 3 7 7, 1 5 3		アメリカ合衆国, 91604 カリフォルニア,
(32)優先日	平成11年8月19日(1999.8.19)		スチューディオ シティ, ドナ ドローン
(33)優先権主張国	米国(US)	ス ブレース 11473	
		(74)代理人	弁理士 丹羽 宏之
			最終頁に統ぐ

(54)【発明の名称】 構造的設定人工遺伝子送達

(57)【要約】

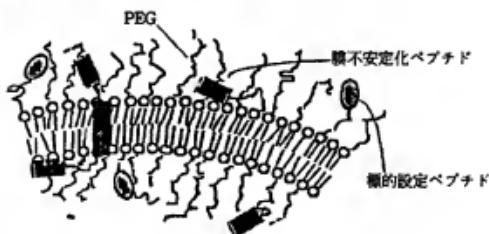
遺伝子治療に対する新規で改良された組成物と方法が提供される。とりわけ構造的設定人工遺伝子送達 (TAGD) ベクターが提供され、それは遺伝子送達のための組換えウイルス粒子 (ヌクレオカプシド) または組換えコアを取り囲む多機能人工表面成分より成る。

構造的設定人工遺伝子送達 (TAGD) 表面エンジニアリング

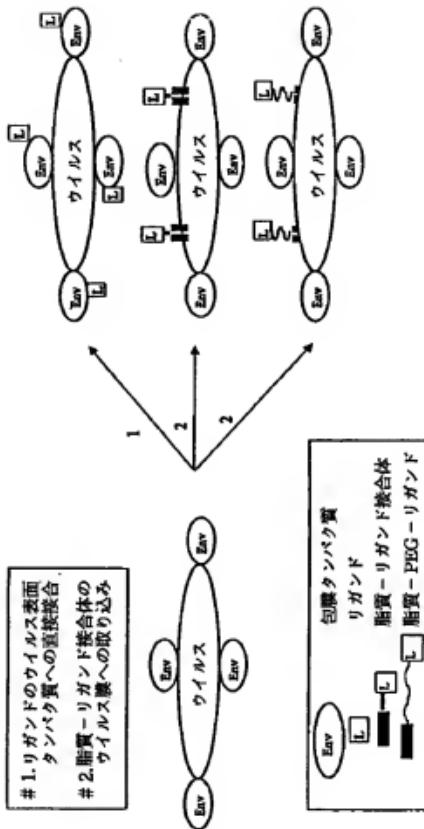


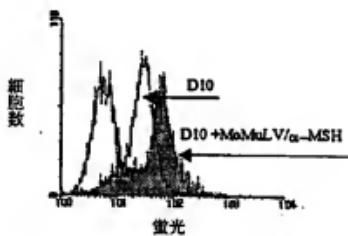
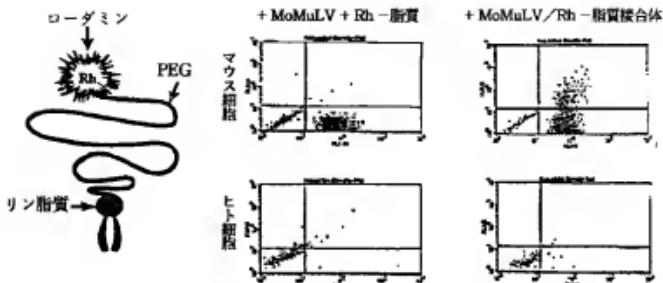
ウイルス	セグメント	ウイルス	セグメント
ALV	-2/14	INFA1	-2/11
BLV	-2/17	MoMuLV	-3/14
ELA	1/52	MMTV	-6/13
FIV	-6/10	MPMV	1/22
HEP C	1/17	RSV	-9/8
HIV 1	-3/11	PINF	1/17
HIV 25YR	1/25	SIV239	-5/13
HTLV2	1/12	SNV	-2/16
HRSV	1/21	VSV	-2/13
infM2	1/16	SimSreV-HLB	-9/8

標的人工遺伝子送達 (TAGD) 表面エンジニアリング



リガンドのウイルス表面への取り込み





INTERNATIONAL SEARCH REPORT

Int. Appl. No.
PCT/US 00/22619

A. CLASSIFICATION OF SUBJECT MATTER		
IPC 7 C12N15/87 C12N15/86 A61K47/48 A61K49/00		
According to International Patent Classification (IPC) or to both national classifications and IPC		
B. FIELDS SEARCHED		
Minimum documentation searched (classification system followed by classification symbols)		
IPC 7 C12N A61K		
Documentation searched other than minimum documentation to the extent that such documentation is required in the fields mentioned		
C. ELECTRONIC DATA (if any)		
Electronic data base consulted during the International search (name of database and, where practical, search terms used)		
EPO-Internal, WPI Data, BIOSIS, MEDLINE		
D. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Character of document, with indication, where appropriate, of the relevant passages	Relevant to claim(s)
X	WO 96 21036 A (VIAGENE INC) 11 July 1996 (1996-07-11) the whole document, in particular page 5 line 28 to page 6 line 5, page 12 and page 27 line 30 to page 28 line 24 -/-	1-7, 9, 10, 15, 18, 19
<input checked="" type="checkbox"/> Further documents are listed in the continuation after C.		<input checked="" type="checkbox"/> Patent family numbers are listed in Annex.
<p>* Special categories of cited documents.</p> <p>"A" document depicting the general state of the art which is not considered to be of particular relevance</p> <p>"P" document which has published on or after the international filing date</p> <p>"T" document which every document on patent, database or which is cited to establish the publication date of another document or other special reasons as specified</p> <p>"O" document pertaining to an event, decision, use, exhibition or other reasons</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p> <p>"T" later document published after the International filing date or priority date and not in conflict with the application but which may be cited to establish the principle of priority underlying the invention</p> <p>"C" document of particular relevance; the claimed invention is not new in view of this document</p> <p>"R" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is taken alone</p> <p>"M" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is taken into account together with one or more other documents, such combination being obvious to a person skilled in the art</p> <p>"B" document member of the same patent family</p>		
Date of the actual completion of the International search		Date of mailing of the International search report
26 January 2001		16.02.01
Name and mailing address of the ISA European Patent Office, P.O. 5016 Potsdamerstr. 2 D-1020 Berlin, Germany Tel. (030) 369-3500, Te. 31 851 600, Fax (030) 369-3505		Authorized officer
		Julia, P

INTERNATIONAL SEARCH REPORT

ISA: Japon Application No
PCT/US 00/22619

C.1(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Details of document, with indicator, where appropriate, of the cited portions	Reference to claim No.
X	FASBENDER A ET AL: "COMPLEXES OF ADENOVIRUS WITH POLYCATIONIC POLYMERS AND CATIONIC LIPIDS INCREASE THE EFFICIENCY OF GENE TRANSFER IN VITRO AND IN VIVO" JOURNAL OF BIOLOGICAL CHEMISTRY, AMERICAN SOCIETY OF BIOLOGICAL CHEMISTS, BALTIMORE, MD, US, vol. 272, no. 10, 7 March 1997 (1997-03-07), pages 6479-6489, XP002060642 ISSN: 0021-9258 cited in the application the whole document, in particular page 6488 left column	1-3,7, 18,19,21
X	WO 98 44938 A (ANDERSON W FRENCH ; GORDON ERLINDA MARIA (US); HALL FREDERICK L (US) 15 October 1998 (1998-10-15) the whole document, in particular paragraph bridging pages 17 to 18 and figure 1B	1,2,4,8, 9,18,19
A	US 4 948 590 A (HAMBOT EDWARD ET AL) 14 August 1990 (1990-08-14) the whole document, in particular column 5, lines 23-26 and column 18, lines 1-2	1-3,8,18
A	US 5 631 018 A (ZALITSKY SAMUEL ET AL) 20 May 1997 (1997-05-20) cited in the application the whole document, in particular column 10 lines 20-32	1,3,4,7, 16,18, 19,21-23
A	WO 97 40854 A (ANTIIVIRALS INC) 6 November 1997 (1997-11-06) the whole text, in particular pages 24-25, 27 and figures 3, 12	1,3-7, 10,12, 17,19-23
A	JANUSZEWSKI M M ET AL: "Functional analysis of the cytoplasmic tail of Moloney murine leukemia virus envelope protein" JOURNAL OF VIROLOGY, US, THE AMERICAN SOCIETY FOR MICROBIOLOGY, vol. 71, no. 5, May 1997 (1997-05), pages 3613-3619, XP002130560 ISSN: 0022-531X the whole document	5,6,10, 11,13-15
P, X	WO 00 02909 A (ANDERSON W FRENCH ; ROZENBERG YANINA (US); UNIV SOUTHERN CALIFORNIA) 20 January 2000 (2000-01-20) the whole document, in particular pages 19-27	1,2,5, 10,11, 13-15,18

INTERNATIONAL SEARCH REPORT

International Application No.
PCT/US 00/22619

Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos. ...
because they relate to subject matter not regarded to be searchable by this Authority, namely:
Although claim 18 is directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. Claims Nos. ...
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. Claims Nos. ...
because they are dependent claims and are not stated in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of Item 2 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos. ...
4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos. ...

Remarks on Protest

The additional search fees were accompanied by the applicant's protest.

No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

Int'l. Appl. No.
PCT/US 00/22619

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9621036	A	11-07-1996	AU 4690596 A	24-07-1996
WO 9844938	A	15-10-1998	AU 6890398 A EP 0973538 A	30-10-1998 26-01-2000
US 4948590	A	14-08-1990	NONE	
US 5631018	A	29-05-1997	US 5395619 A AT 162710 T AU 6357694 A CA 2156901 A DE 69408304 D DE 69408304 T DK 688207 T EP 0688207 A ES 2114186 T JP 3066437 B JP 8507523 T WO 9420073 A	07-03-1995 15-02-1998 20-09-1994 15-09-1994 05-03-1998 20-08-1998 06-04-1998 27-12-1995 16-05-1998 17-07-2000 13-08-1996 15-09-1994
WO 9740854	A	06-11-1997	AU 2929897 A EP 0966303 A JP 2000509394 T US 6030941 A	19-11-1997 29-12-1999 25-07-2000 29-02-2000
WO 0002909	A	20-01-2000	AU 4386999 A	01-02-2000

